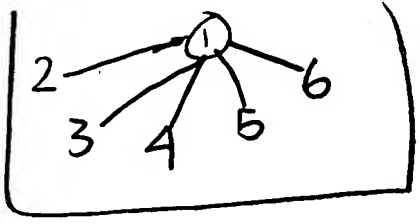

Claim Tree

What is claimed is:

1. An organic electroluminescence display panel comprising a plurality of organic electroluminescence elements, each of the elements comprising first and second display electrodes and at least one of organic function layers including an emission layer comprising an organic compound, the function layers being sandwiched and stacked between the first and second display electrodes, and a substrate supporting the plurality of organic electroluminescence elements; wherein the organic function layers include at least one common layer that is formed commonly for the plurality of organic electroluminescence elements and has charge transport properties, and the common layer has a gap filling part extending among the plurality of organic electroluminescence elements.

lacks antecedent basis?

2. The organic electroluminescence display panel according to claim 1, wherein sheet resistance ρs_ctl_min of the gap filling part is a value satisfying the following formula,

$$\rho s\_ctl\_min \geqq (V\_on - V\_off) / (j \cdot I \cdot a)$$

where ρs_ctl_min indicates the minimum of sheet resistance ρs_ctl, V_on indicates voltage between the first and second display electrodes of the organic electroluminescence element without electric leakage in an on-state, V_off indicates voltage between the first and second display electrodes of the organic electroluminescence element that is adjoining in an off-

state, j indicates a luminance difference coefficient of 0.08 or less, I indicates driving current, and a indicates a coefficient obtained from a shape of the gap filling part, respectively.

3. The organic electroluminescence display panel according to claim 1, wherein the sheet resistance ρs_ctl_min of the gap filling part is a value satisfying a formula,

$$\rho s\_ctl\_min \geqq (V\_on(K-1) - V\_off) \cdot (K-1) / (I\_const \cdot a)$$

where ρs_ctl_min indicates the minimum of the sheet resistance ρs_ctl, K indicates a gray-scale number for display, V_on(m) indicates voltage between the first and second display electrodes of the organic electroluminescence element without the electric leakage at a gray-scale m (m is an integer of 1 or more) in the on-state, V_off indicates the voltage between the first and second display electrodes of the organic electroluminescence element that is adjoining in the off-state, I_const indicates driving current having a constant value, and a indicates the coefficient obtained from the shape of the gap filling part, respectively.

4. The organic electroluminescence display panel according to claim 1, wherein the sheet resistance ρs_ctl_min of the gap filling part is a value satisfying a formula,

$$\rho s\_ctl\_min \geqq (V\_on(K-1) - V\_off) \cdot (K-1) / (a \cdot I(K-1))$$

where ρs_ctl_min indicates the minimum of the sheet resistance ρs_ctl, K indicates the gray-scale number for display, V_on(n) indicates voltage between the first and second display electrodes of the organic electroluminescence element without the electric leakage at a gray-scale n (n is an integer of 1 or more) in the on-state, V_off indicates the voltage between the first and second display electrodes of the organic electroluminescence element that is adjoining in the off-state, I(m) indicates electric current flowing into the organic electroluminescence element at the gray-scale m, and a indicates the coefficient obtained from the shape of the gap filling part, respectively.

5. The organic electroluminescence display panel according to claim 1, wherein sheet resistance ρs_ctl10 of the gap filling part is a value satisfying a formula,

$$\rho s\_ctl10 \geqq 10 \cdot (V\_const - V\_off) / (I(m) \cdot a)$$

where ρs_ctl10 indicates the minimum of the sheet resistance ρs_ctl, V_const indicates constant driving voltage, V_off indicates the voltage between the first and second display electrodes of the organic electroluminescence element that is adjoining in the off-state, I(m) indicates the electric current flowing into the organic electroluminescence element at the gray-scale m (m is an integer of 1 or more), and a indicates the coefficient obtained from the shape of the gap filling part, respectively.

6. The organic electroluminescence display panel according to claim 1, wherein the sheet resistance ρs_ctl10 of the gap filling part is a value satisfying a formula,

$$\rho s\_ctl10 \geqq 10 \cdot (V\_on(1) - V\_off) / (I(1) \cdot a)$$

where ρs_ctl10 indicates the minimum of the sheet resistance ρs_ctl, V(m) indicates driving voltage of the organic electroluminescence element at the gray-scale m, V_off indicates the voltage between the first and second display electrodes of the organic electroluminescence element that is adjoining in the off-state, I(m) indicates the electric current flowing into the organic electroluminescence element at the gray-scale m (m is the integer of 1 or more), and a indicates the coefficient obtained from the shape of the gap filling part, respectively.